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(54) Title: METHODS OF DRIVING AN ARRAY OF OPTICAL ELEMENTS

## (57) Abstract

Relates to writing an array of optical elements which are each switched between two states according to input data sets. In a first method, data is written in two steps in which different selected elements are respectively driven to one binary state and the other binary state. The selected elements of the two sets may be complementary, but are preferably only those which are required to change from their existing state. The latter criterion may be used in an alternative method using a single addressing of the array to turn elements in either direction as required. In a further method, as shown, selected elements only of a blank array are written in a first WRITE step so as to correspond with a set of data, and in a subsequent second ERASE step the selected elements are selectively erased to restore a blank array prior to writing and erasing another set of data. The methods have particular utility for maintaining a dc balance at pixels of a liquid crystal array.

